THIS SUPPLEMENT WILL REMAIN IN EFFECT ONLY UNTIL THE INFORMATION IS PUBLISHED IN AN OFFICIAL DEPARTMENT OF THE ARMY PUBLICATION.

SUPPLEMENT

2 DECEMBER 1952

SUPPLEMENT TO

TM 11-2566

PUBLIC ADDRESS SET AN/PIQ-1

The following information, published on Order No. 21839-Phila-50-02, supplements TM 11-2566, 18 May 1945.
The equipment covered in this supplement is Public Address Set AN/PIQ-1A.

Personnel using this equipment and having custody of this technical manual will enter suitable notations beside each affected paragraph and figure in the technical manual to indicate the presence of this supplementary information.

Note. Public Address Set AN/PIQ-1A, procured on Order No. 21839-Phila-50-02, is similar to Public Address Set AN/PIQ-1 covered in TM 11-2566 except for certain changes to the list of supplied parts, and for the substitution of dry-cell batteries for storage batteries, for portable operation. Information in TM 11-2566 which applies to Public Address Set AN/PIQ-1 applies also to Public Address Set AN/PIQ-1A unless indicated otherwise in this supplement.

Page 1. Par. 1. In line 3 after "MT-352," insert: (Battery Box CY-1137/PIQ-1 on the AN/PIQ-1A).

Page 1. Par. 3. Add the following after subparagraph *a*:

a. 1. POWER INPUT FOR AN/PIQ-1A. The power to operate Public Address Set AN/PIQ-1A is obtained from four Batteries BA-401/U or four Batteries BA-30 to supply 6 volts for the filament circuit and

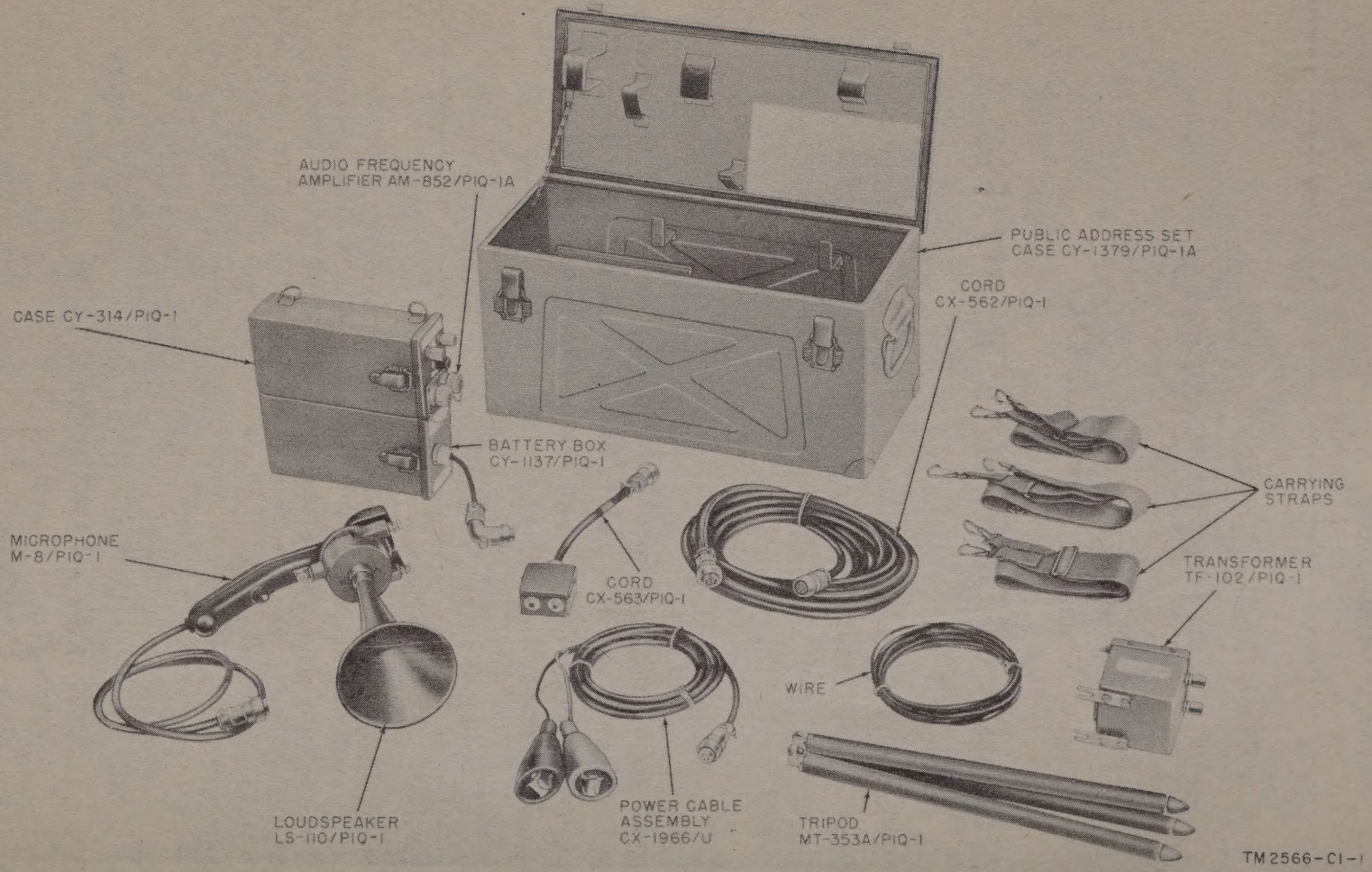

Figure 2.1. Components of Public Address Set AN/PIQ-1A.

three Batteries BA-56 to supply 135 volts for the plate circuit. Electrical Power Cable Assembly CX-1966/U, terminated with battery clips, and a connector, is provided so that an external 6-volt d-c power supply may be used. Use of this cord modifies the circuit to make use of a synchronous vibrator in the amplifier B-power supply.

Page 2. Fig. 2. Insert figure 2.1 after figure 2.

Page 3. Par. 3. Add the following after subparagraph *d*:

d. 1. FREQUENCY RESPONSE FOR AN/PIQ-1A. The frequency response of Public Address Set AN/PIQ-1A does not vary more than plus or minus 2½ decibels from the 1,000-cycle value over a range of 500 to 5,000 cycles.

Page 3. Fig. 3. Insert figure 3.1 after figure 3.

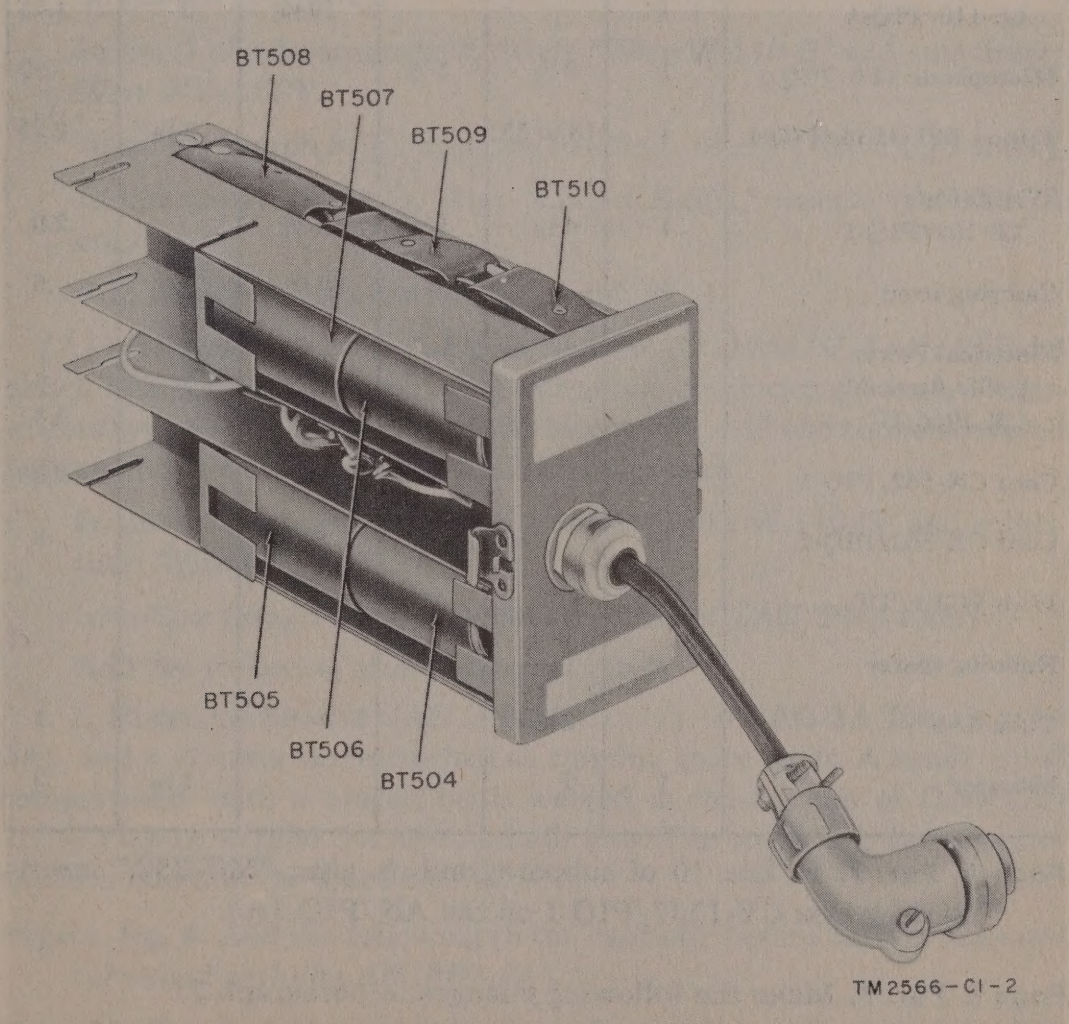

Figure 3.1. Public Address Set AN/PIQ-1A, Battery Box CY-1137/PIQ-1.

Page 4. Par. 5. Add paragraph 5.1 after paragraph 5.

5.1. Table of Components for Public Address Set AN/PIQ-1A

Component	Number required	Height (in.)	Depth (in.)	Length (in.)	Diameter (in.)	Weight (lb)
Box (packed) operating parts	1	13½	13½	24½		70.0
Public Address Set Case CY-1379/PIQ-1A	1	9½	9½	20¼		15.0
Audio Frequency Amplifier AM-852/PIQ-1A	1	4	2¼	8¼		3.4
Battery Box CY-1137/PIQ-1	1	4	2¼	8		5.0
Case CY-314/PIQ-1	1	8⅜	2½	8¼		3.25
Loudspeaker LS-110/PIQ-1	1			10¾	5	1.75
Microphone M-8/PIQ-1	1	3½	3½			.90
Tripod MT-353A/PIQ-1	1	18 to 55			1⅝	2.25
Transformer TF-102/PIQ-1	1	4¾	5¼	3⅝		2.0
Carrying strap	3		2	28 to 48		.5
Electrical Power Cable Assembly CX-1966/U	1			120		1.4
Cord CX-562/PIQ-1	1			300		2.0
Cord CX-563/PIQ-1	1			9		.5
Wire WD-1/TT	1			300		
Running spares						
Tube 3A5		2⅛			¾	.1
Vibrator	1	2			1⅛	.2

Page 5. Par. 7. In line 10 of subparagraph *b*, after "MT-352," insert: (Battery Box CY-1137/PIQ-1 on the AN/PIQ-1A).

Page 6. Par. 7. Make the following changes in paragraph 7:

Add the following after subparagraph *e*.

e. 1. BATTERY BOX CY-1137/PIQ-1 (AN/PIQ-1A only) (fig. 3.1). Three Batteries BA-56 and four Batteries BA-401/U or BA-30, are mounted in the steel chassis tray and are connected to a 3-½-inch battery cable which protrudes from the front of the tray. The cable is terminated by connector J502.

Add the following at the end of subparagraph *f:*

On Public Address Set AN/PIQ-1A, a threaded stud (⅜-16), approximately ¾ inches long, is located on top of Tripod MT-353A/PIQ-1 for mounting Transformer TF-102/PIQ-1. The transformer is provided with a tapped hole which receives the threaded rod of the tripod.

In line 5 of subparagraph *h,* after "MT-352," insert: (Battery Box CY-1137/PIQ-1 on the AN/PIQ-1A).

Add the following "Note" after subparagraph *i.*

Note. Spare Battery Tray MT-352 is not supplied with the AN/PIQ-1A.

In line 1 of subparagraph *k,* after "four cords," insert: (three cords on the AN/PIQ-1A).

In line 2 of subparagraph *k,* delete "Wire W-110-B" and substitute: Wire WD-1/TT.

In subparagraph *k*(1), after the heading, insert: (AN/PIQ-1 only).

In subparagraph *k*(2), after "Cord CX-561," insert: (AN/PIQ-1 only).

Add the following after subparagraph *k*(2).

(2.1) Electrical Power Cable Assembly CX-1966/U (AN/PIQ-1A only). This cord is composed of 10 feet of two-conductor cordage, Underwriters type SJ, with connector J402 on one end, and two rubber-covered battery clips (E401 and E402) on the other end.

In line 1 of subparagraph *k*(5), delete "Wire W-110-B" and substitute: Wire WD-1/TT.

In subparagraph *l,* after the heading, insert: (AN/PIQ-1 only).

Add the following after subparagraph *l:*

l. 1. RUNNING SPARES (AN/PIQ-1A only). A 3AG-3A fuse, a tube 3A5, and a vibrator are furnished as running spare parts. A small metal compartment with a hinged lid is welded in the bottom of Case CY-1379/PIQ-1A to hold the tube and vibrator. The spare fuse is clipped to the fuse board in the amplifier.

Page 8. Fig. 4. Add the following to the caption: *(spare battery tray not furnished with the AN/PIQ-1A).*

Page 10. Fig. 6. Add the following to the caption: *(Battery Box CY-1137/PIQ-1 supplied with the AN/PIQ-1A).*

Page 11. Par. 10. Make the following changes in paragraph 10:

In line 2 of subparagraph *a*(4), after "MT-352," insert: (Battery Box CY-1137/PIQ-1 with the AN/PIQ-1A).

In subparagraph *b*(3), after "wingscrew," add: (AN/PIQ-1 only).

In line 1 of subparagraph *b*(5), delete "(Wire W-110-B)" and substitute: (Wire WD-1/TT).

In subparagraph *b*(6), after "MT-352," add: (Battery Box CY-1137/PIQ-1 with the AN/PIQ-1A).

Page 12. Fig. 7. Add the following to the caption: *(Battery Box CY-1137/PIQ-1 supplied with the AN/PIQ-1A).*

Page 13. Par. 10. In line 3 of subparagraph c(1), after "CX-561," insert: (Electrical Power Cable Assembly CX-1966/U with the AN/PIQ-1A).

Page 13. Fig. 8. Add the following to the caption: *(Battery Box CY-1137/PIQ-1 and Electrical Power Cable Assembly CX-1966/U are supplied with the AN/PIQ-1A).*

Page 14. Fig. 9. Add the following to the caption: *(Battery Box CY-1137/PIQ-1 supplied with the AN/PIQ-1A).*

Page 15. Fig. 10. Add the following to the caption: *(Battery Box CY-1137/PIQ-1 and Electrical Power Cable Assembly CX-1966/U are supplied with the AN/PIQ-1A).*

Page 17. Par. 15. In line 5 of subparagraph c, delete "storage."

Page 17. Par. 16. Add the following "Note" after paragraph 16:

Note. For long time storage, remove batteries from the tray. When removing or inserting B batteries, draw the connecting wires over the edge of the tray to permit passage of the batteries into or from the battery compartment.

Page 22. Fig. 12. Insert figure 12.1 after figure 12.

Page 24. Par. 27. Make the following changes in paragraph 27:

In subparagraph *a*, line 6, after "charger," add: (AN/PIQ-1 only).

Add the following after subparagraph *a:*

a. 1. INSPECT. Remove rundown A and B batteries from the battery box promptly. If the equipment is to be stored for more than a few days, remove batteries from the battery tray.

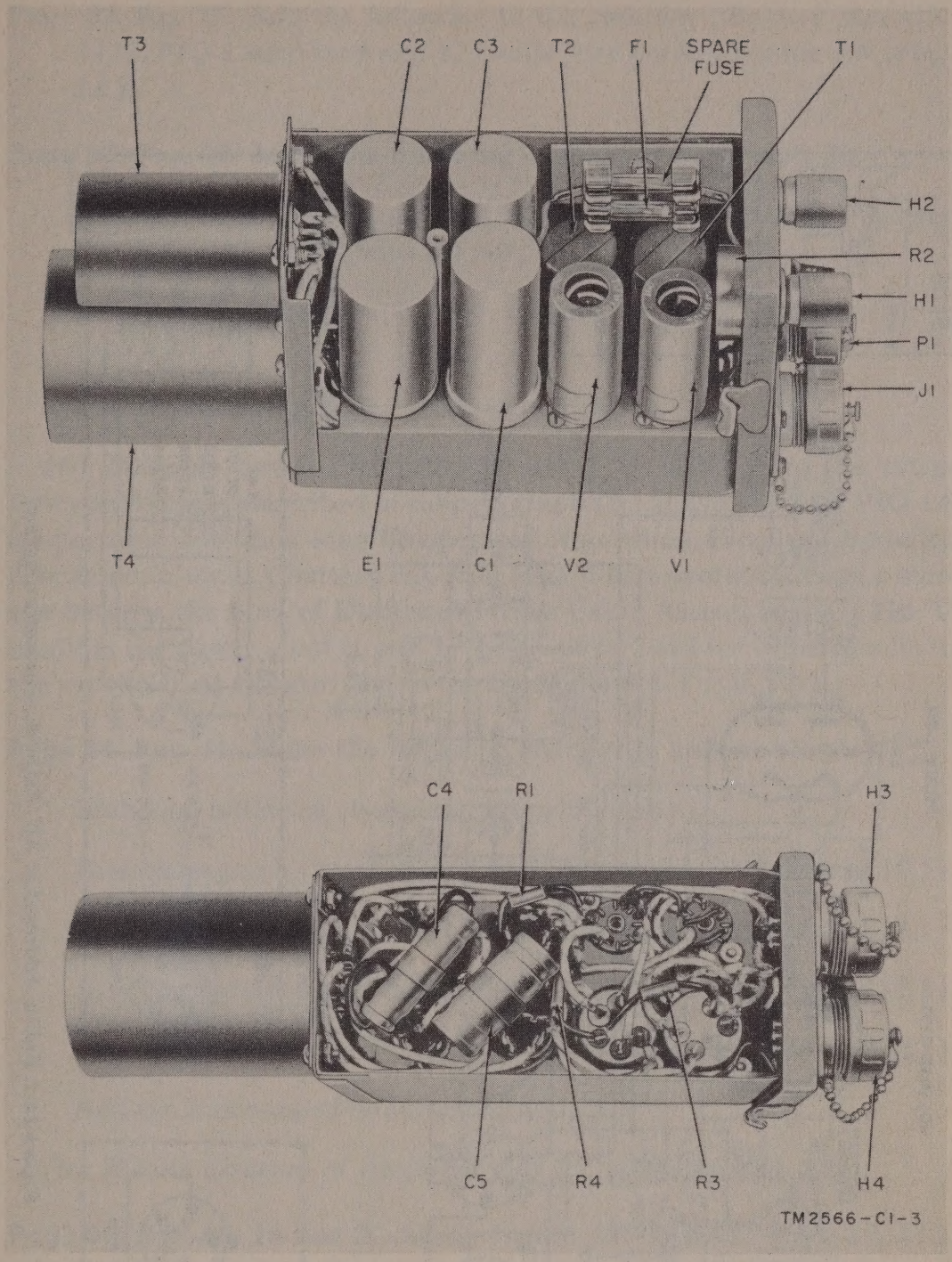

Figure 12.1. Public Address Set AN/PIQ-1A, top and bottom views of amplifier.

Page 25. Par. 28. In line 2, after "wingscrew," insert: (AN/PIQ-1 only).

Page 29. Par. 35. In line 5, after "MT-352," insert: (AN/PIQ-1 only).

Page 30. Fig. 15. Add the following to the caption: *(Battery Box CY-1137/PIQ-1 supplied with the AN/PIQ-1A).*

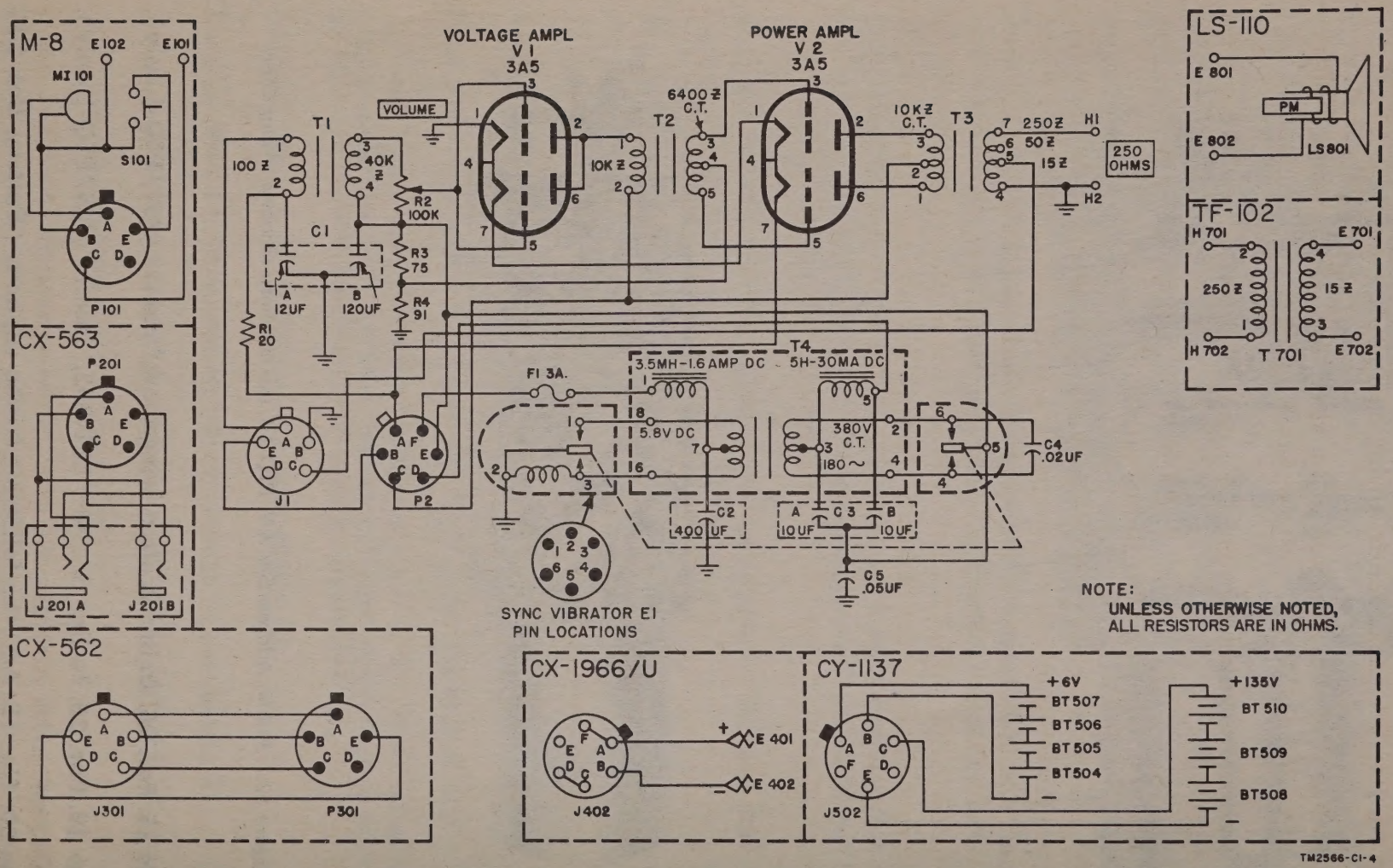

Figure 18.1. Public Address Set AN/PIQ-1A, schematic diagram.

Page 32. Fig. 17. Add the following to the caption: *(Battery Box CY-1137/PIQ-1 supplies 6 and 135 volts (dry battery) to the AN/PIQ-1A).*

Page 33. Par. 38. Make the following changes in paragraph 38:

In line 3 of subparagraph *a*(3), after "MT-352," insert: (Battery Box CY-1137/PIQ-1 with the AN/PIQ-1A).

In line 3 of subparagraph *a*(4), delete "the tubes" and substitute: tube V2.

Add the following after subparagraph (5):

(6) *B-supply circuit (AN/PIQ-1A only).* In addition to the vibrator-type B supply described in subparagraph (5) above, the AN/PIQ-1A for portable operation may be operated from three 45-volt B batteries connected in series (Battery BA-56). (For 6-volt operation from a storage battery, the plug of Electrical Power Cable Assembly CX-1966/U modifies the power input circuit to the amplifier, and furnishes 6 volts to the synchronous vibrator and to the filaments of V1 and V2.)

Page 34. Par. 41. Make the following changes in paragraph 41:

Make the following changes in subparagraph *a:*

In subparagraph (2), change "(fig. 18)" to read: (figs. 18 and 18.1).

In subparagraph (3), change "(fig. 19)" to read: (figs. 19 and 19.1).

In subparagraph (4), change "(fig. 10)" to read: (figs. 12 and 12.1).

In subparagraph (8), change "(fig. 20)" to read: (figs 20 and 20.1).

Add the following after subparagraph (8):

(9) *Wiring diagram of Amplifier AM-852/PIQ-1A (fig. 22).*

Page 35. Par. 42. In line 3, change "figure 19" to read: (figs. 19, 19.1, and 19.2).

Page 35. Par. 43. In subparagraph *a*, add the following at the end of the second sentence: Check fuse F1 to make sure it has not opened.

Page 35. Par. 44. In subparagraph *b*, line 1, change "The first chart" to read: Operator's trouble-shooting chart.

Page 36. Fig. 18. Add the following to the caption: *(AN/PIQ-1 only).*

Page 36. Fig. 18. Insert figure 18.1 after figure 18.

Page 37. Par. 45. In line 2 of subparagraph *a*, after "MT-352," insert: (Battery Box CY-1137/PIQ-1 with the AN/PIQ-1A).

Page 37. Par. 46. In line 5 of subparagraph *a*, change "Figure 19" to read: Figures 19, 19.1, and 19.2.

Page 38. Par. 47. In line 2 of subparagraph *a*(1), change "chart (fig. 19)" to read: charts (figs. 19, 19.1, and 19.2).

Page 40. Fig. 19. Add the following to the caption: *(AN/PIQ-1 only).*

Page 40. Fig. 19. Insert figure 19.1 after figure 19.

STORAGE BATTERY OPERATION

All voltage and resistance measured from indicated points to ground.

VOLTAGES

D-c voltages obtained with a 20,000-ohms-per-volt voltmeter and read on the 10- to 250-volt scales.

A-c voltages obtained with 1,000-ohms-per-volt voltmeter and read on the 10- to 250-volt scales.

Tubes are in; power is on; volume control is at minimum; 6-volt, d-c power supply is used.

All voltages are direct current unless indicated otherwise.

RESISTANCES

Resistances are measured on the 3,000- to 3,000,000-ohm scales.

Tubes are in; Electrical Power Cable Assembly CX-1966/U is plugged in; battery clips are shorted together; microphone plug is out; volume control is at minimum.

Infinite ohms are 5 megohms or higher.

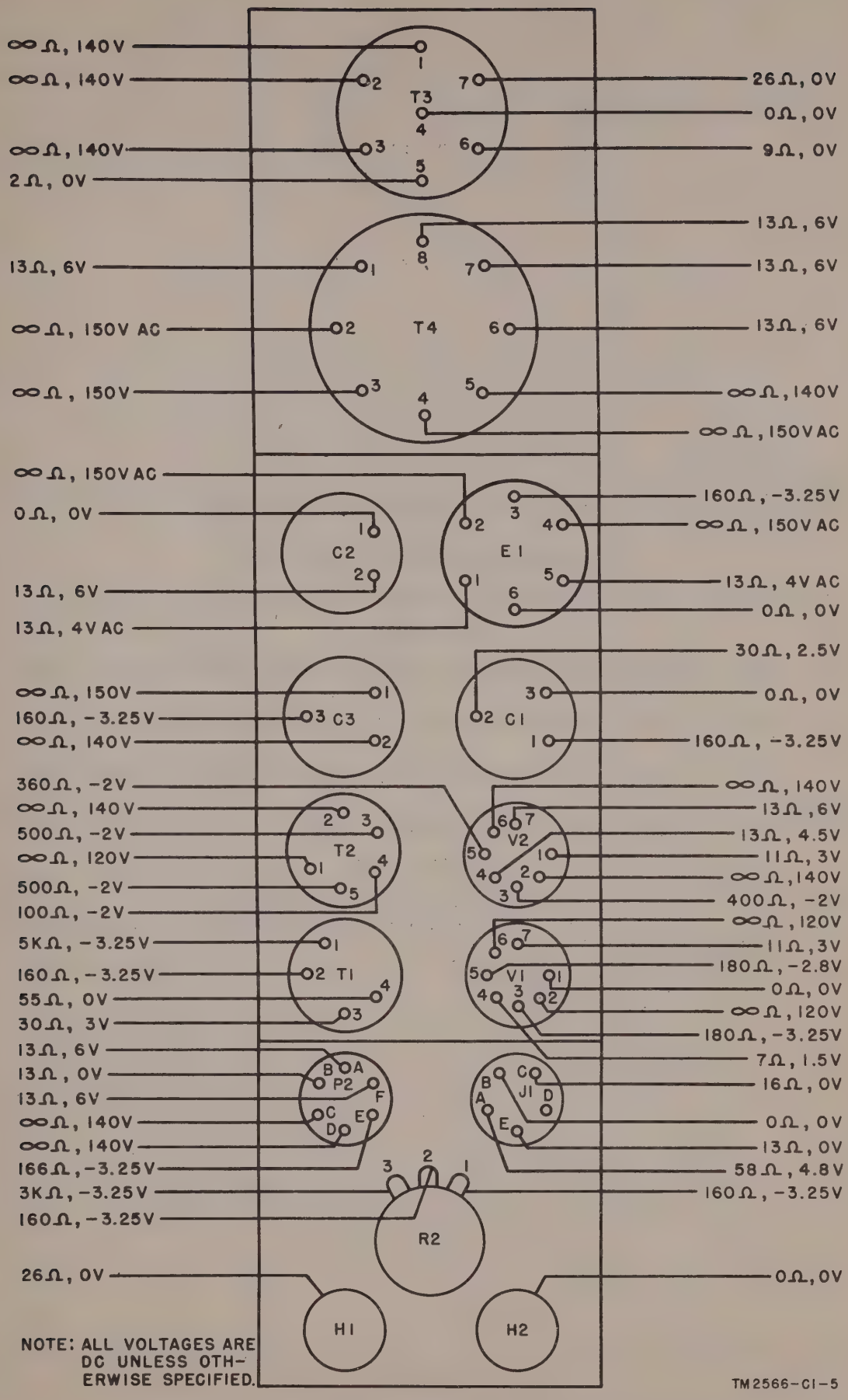

Figure 19.1. Voltage and resistance chart for storage battery operation (AN/PIQ-1A only).

Page 40. Fig. 19.1. Insert figure 19.2 after figure 19.1.

DRY-CELL BATTERY OPERATION

All voltage and resistance measured from indicated points to ground.

VOLTAGES

D-c voltages obtained with a 20,000-ohms-per-volt voltmeter and read on the 10- to 250-volt scales.

A-c voltages obtained with 1,000-ohms-per-volt voltmeter and read on the 10- to 250-volt scales.

Tubes are in; power is on; volume control is at minimum; 6-volt, d-c power supply used.

All voltages are direct current unless indicated otherwise.

RESISTANCES

Resistances are measured on the 3,000- to 3,000,000-ohm scales.

Tubes are in; connector J502 is out; microphone plug P101 is out; volume control is at minimum.

Infinite ohms are 5 megohms or higher.

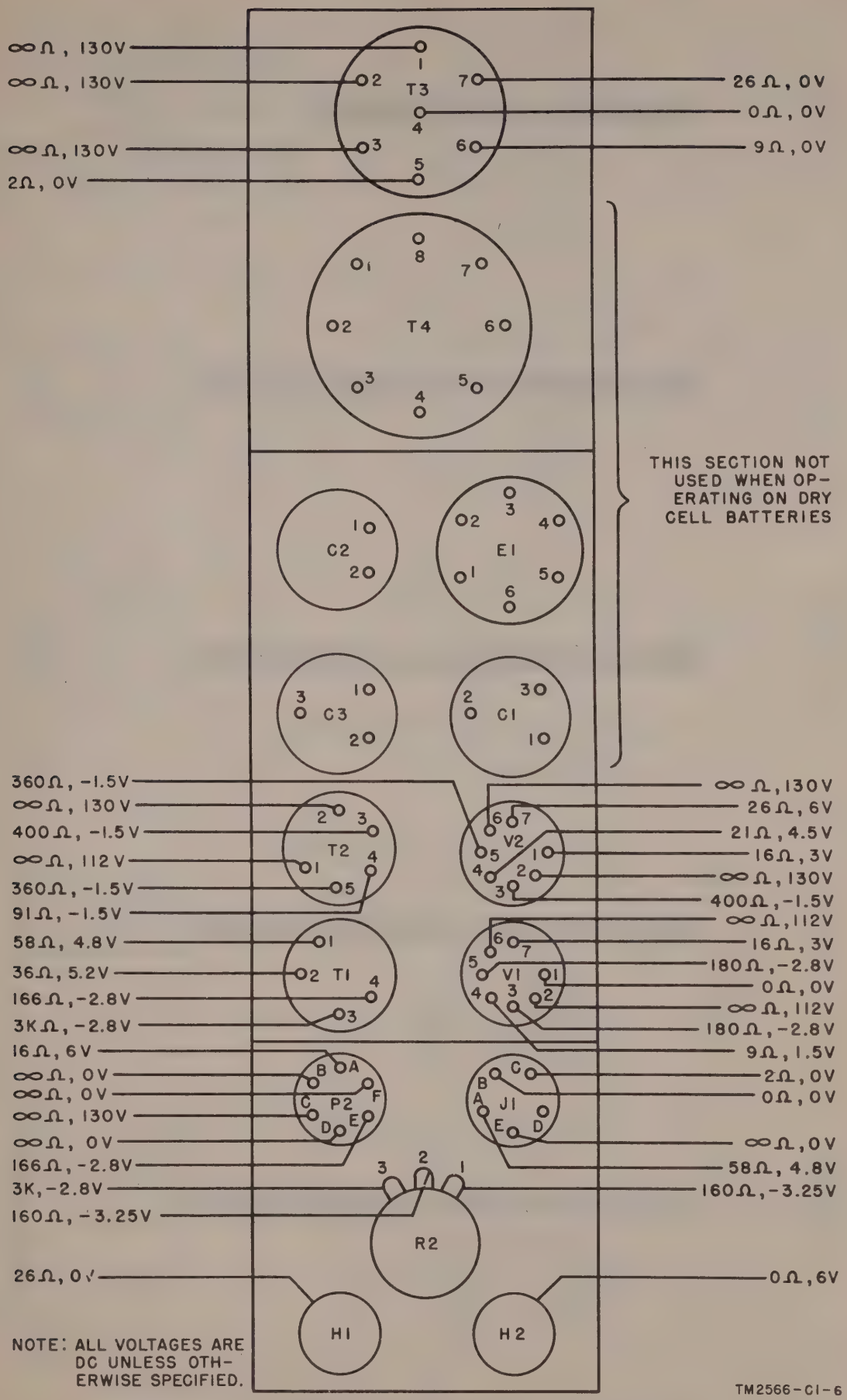

Figure 19.2. Voltage and resistance chart for dry-cell battery operation (AN/PIQ-1A only).

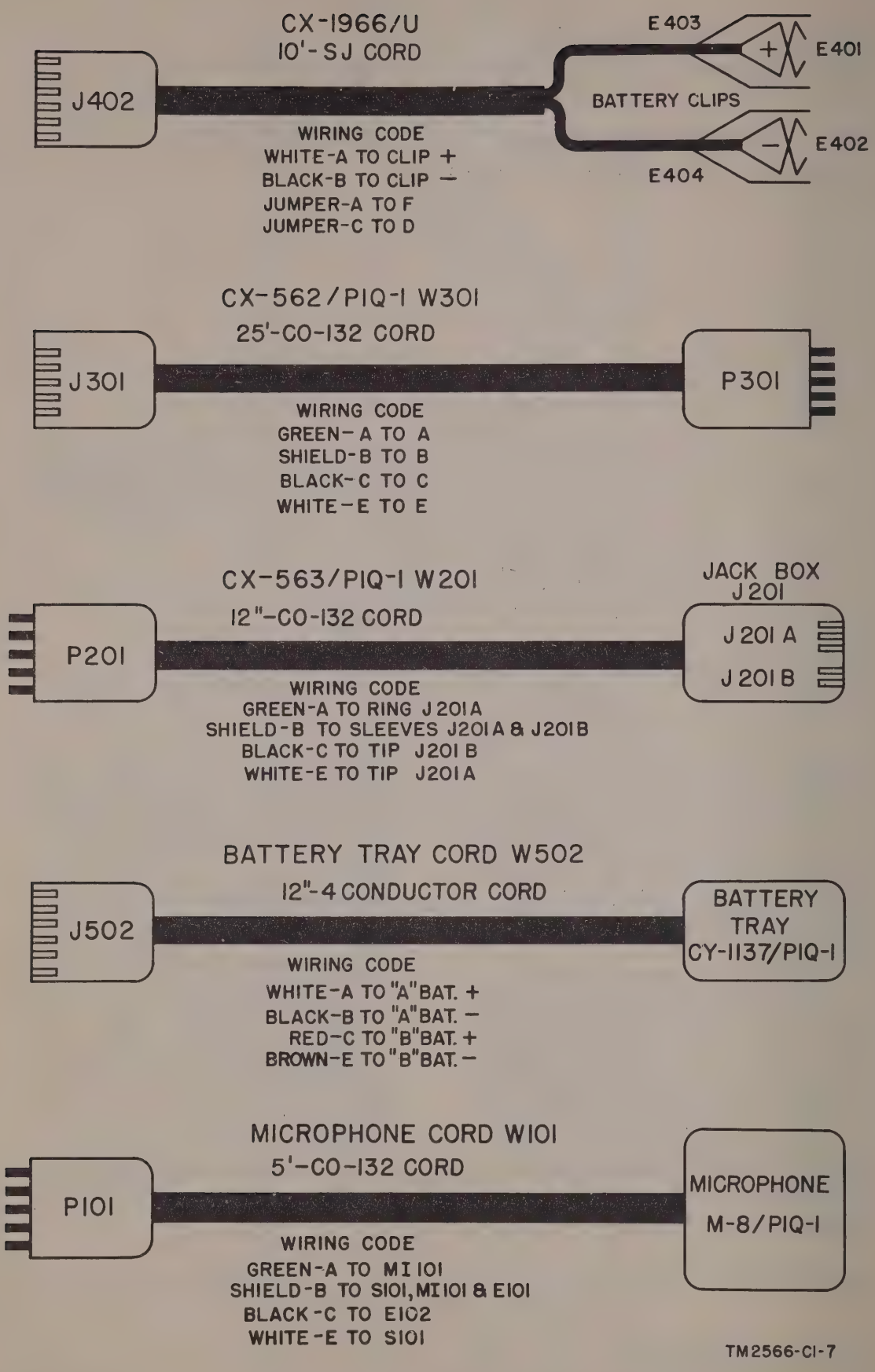

Figure 20.1. Public Address Set AN/PIQ-1A, cords wiring diagram.

Page 42. Fig. 20. Insert figure 20.1 after figure 20.

Page 43. Par. 48. In subparagraph *h*, delete the sentence and substitute the following:

The schematics and voltage-resistance charts will be used for the following examples:

Page 47. Par. 52. Make the following changes in paragraph 52:

In line 3 of "Probable trouble" column, after "MT-352," insert: (Battery Box CY-1137/PIQ-1 with the AN/PIQ-1A).

In line 12, of "Corrections" column, add after "J-501": (J502 with the AN/PIQ-1A).

Page 48. Par. 53. Add the following after paragraph 53:

53.1. Trouble-shooting Chart for AN/PIQ-1A

Symptom	Probable trouble	Correction
No sound output with microphone switch S101 depressed.	Fuse F1 blown[a].	Replace fuse.
	Batteries defective.	Charge storage batteries or replace dry cells.
	Defective cords or connectors.	Repair or replace.
	Tube V1 or V2 defective.	Replace defective tube.
	Defective vibrator E1[a].	Replace vibrator.
	Defective Loudspeaker LS-110.	Replace if open.
	Defective microphone M-8.	Replace if defective.
	Defective switch S101.	Replace switch.
	Potentiometer R2 defective.	Replace potentiometer.
	Transformer T1, T2, or T3 open.	Replace defective transformer.
	Transformer T701 (stationary operation) open.	Replace transformer.

[a]Not used in dry-cell operation.

53.1. Trouble-shooting Chart for AN/PIQ-1A (contd)

Symptom	Probable trouble	Correction
Amplifier operates with low volume.	Batteries weak.	Recharge storage batteries or replace dry cells.
	Tube V1 or V2 defective.	Replace defective tube.
Hum in output.	Capacitor C2, C3A, or C3B open.	Replace defective capacitor.
	Defective choke in transformer T4.	Replace transformer.

Page 48. Footnote. In line 3, change "figure 19" to read: figures 19, 19.1, and 19.2.

Page 18. Par. 64. Add the following after paragraph 64:

65. Identification Table of Parts for Public Address Set AN/PIQ-1A (Sig C Stock No. 6C198-1)

Note. The fact that a part is listed in this table is not sufficient basis for requisitioning the item. Requisitions must cite an authorized basis, such as a specific T O&E, T A, SIG 6, SIG 7-8-10, SIG 10, list of allowances of expendable material, or another authorized supply basis. The Department of the Army Supply Catalog applicable to the equipment covered in this manual is SIG 7&8-AN/PIQ-1. For an index of available supply catalogs in the Signal portion of the Department of the Army Supply Catalog, see the latest issue of SIG 1, Introduction and Index.

65. Public Address Set AN/PIQ-1A (Sig C stock No. 6C198-1)

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	AMPLIFIER, AF, AM-852/PIQ-1A: 1½ w. (See paragraph 66 for parts.)	Audio power amplifier.	6C8-852
	BATTERY BOX, CY-1137/PIQ-1: (See paragraph 67 for parts.)	Power source for amplifier.	3B375-1137
	CABLE ASSEMBLY, special purpose: Cord CX-563/PIQ-1; 6″ lg excluding term.; w/AN-3106-14S-5P connector one end, metal box containing jacks JJ-033 and JJ-034 other end.	Connector and cable for microphone.	3E6000-563
	CABLE ASSEMBLY, special purpose: Cord CX-562/PIQ-1; 25 ft excluding term.; w/AN-3106-14S-5P connector one end, other end AN-3101-14S-5S connector.	Connector and cable for microphone.	3E6000-562
	CABLE ASSEMBLY, power: electrical, CX-1966/U Underwriters type SU cable; two #18 AWG stranded copper cond; 300 v; 10 ft lg excluding term.; w/two Mueller type No. 21 battery clips one end, connector AN-3106-14S-6S other end.	Cable for connecting Amplifier AM-852 to external battery.	~~3E5999-8.20~~ 3E5999-9.19
	CASE CY-1379/PIQ-1A:	Carrying case.	6F300-1379
	CASE CY-314/PIQ-1:	Holds amplifier and battery box.	6C12-314
	LOUDSPEAKER LS-110/PIQ-1 dynamic. (See paragraph 68 for parts.)	Converts electrical energy into sound energy.	6C42-110

65. Public Address Set AN/PIQ-1A (Sig C stock No. 6C198-1) (contd)

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	MICROPHONE M-8/PIQ-1: (See paragraph 69 for parts.)	Converts sound energy into electrical energy.	2B1657-8
	MISCELLANEOUS EQUIPMENT. (See paragraph 70 for parts.)		
	TRANSFORMER, AF, TF-102/PIQ-1: (See paragraph 71 for parts.)	Line matching transformer to loudspeaker.	2Z9964-102
	TRIPOD MT-353A/PIQ-1:	Stand for loudspeaker.	6C335-353

66. Amplifier AM-852/PIQ-1A

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
H3, H4	CAP: Aluminum, anodized finish; Cyl; 7/16" lg x 1" OD.	Covers connector receptacle when not in use.	2Z1612.26
C4	CAPACITOR, fixed: capacitor type CP28A1EF203K; paper dielectric; 20,000 uuf, 600 vdcw.	Spark reducing capacitor for vibrator.	3DA20-208
C5	CAPACITOR, fixed: paper dielectric; 50,000 uuf, 600 vdcw.	Bypass capacitor for bias supply.	3DA50-248
C3A, C3B	CAPACITOR, fixed: electrolytic; two sect.; 10/10 uf, 200 vdcw.	Output filter for power supply.	3DB10-139

C1a, C1b	CAPACITOR, fixed: electrolytic; two sect.; 12/120 uf, 6 vdcw.	Grid bypass for V-1.	3DB120-1
C2	CAPACITOR, fixed: electrolytic; one sect.; 400 uf, 6 vdcw.	Input filter for power supply.	3DB400-2
J1	CONNECTOR, receptacle: five round female cont pol.	Input connector for amplifier.	2ZK7409-20
P2	CONNECTOR, receptacle: 6 round male cont pol.	Power connector for power cable CX-1966/U.	2Z7116.40
F1	FUSE, cartridge: 3.0 amp; open in 1 hour at 135% load, rated continuous at 110% load; 250 v; one time.	Protects power supply circuit.	3Z2603.2
	HOLDER, fuse: block type; w/two-type 3AG cartridge fuses; $2\frac{1}{16}$" lg x 1" wd x $\frac{1}{2}$" h, o/a.	Holds active and spare fuses.	3Z3282-26.1
E2	KNOB: round; for $\frac{1}{4}$" dia shaft.	Knob for volume control.	2Z5842-12
N1	LABEL: circuit; $3\frac{5}{8}$" wd x $4\frac{1}{8}$" lg; black print on white background.	Circuit label for amplifier.	6D16818-58
H1, H2	POST, binding: screw type; knurled knob; $\frac{39}{64}$" dia x $1\frac{5}{32}$" lg fully extended, excluding stud; No. 12-24 thd x $\frac{3}{8}$" lg mtg stud.	Binding post for loudspeaker line.	3Z737-40
R1	RESISTOR, fixed: composition; 20 ohms, $\frac{1}{2}$ w; RC20BF200J.	Bias resistor for microphone.	3RC20BF200J
R3	RESISTOR, fixed: composition; 75 ohms, $\frac{1}{2}$ w; type RC20BF750J.	Grid bias resistor for V1.	3RC20BF750J
R4	RESISTOR, fixed: composition; 91 ohms, $\frac{1}{2}$ w; RC20BF910J.	Grid bias resistor for V1 and V2.	3RC20BF910J
R2	RESISTOR, variable: composition; 100,000 ohms, 10%; 1 w; metal case $1\frac{9}{32}$" dia x $2\frac{1}{32}$" d; enclosed.	Volume control.	3RV51036

66. Amplifier AM-852/PIQ-1A (contd)

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
E3	SHIELD, tube: type TS102 U02 steel; bayonet mtd; 13/16" ID, 1¾" lg.	Tube shield for V1 and V2.	2Z8304.276
J2	SOCKET, tube: 6 cont medium; round plastic body, 5/32" lg x 1⅛" OD.	Socket for vibrator.	2Z8676.87
X1, X2	SOCKET, tube: 7 cont miniature; type T102P01.	Socket for 3A5 tube.	2Z8677.94
T1	TRANSFORMER, AF: input; primary impedance 100 ohms, secondary impedance 40,000 ohms; hermetically sealed cyl metal case, silicon audio "A" core.	Couples microphone input to voltage amplifier V1.	2Z9631.279
T2	TRANSFORMER, AF: plate coupling type; primary impedance 10,000 ohms, secondary impedance 6,400 ohms CT; hermetically sealed cyl metal can.	Couples V1 output to grid of V2.	2Z9636.91
T3	TRANSFORMER, AF: plate coupling; primary impedance 10,000 ohms CT; secondary impedance 250 ohms o/a tapped at 50 and 15 ohms; hermetically sealed cyl metal can.	Matches amplifier output impedance to speaker.	2Z9632.394
T4	TRANSFORMER, power: vibrator type; input 6 v dc at 1.6 amp; output 360 v ac, CT, at 30 ma; 180 cyc output; hermetically sealed cyl metal can.	Converts low-voltage ac to high-voltage ac.	2Z9625-45
V1, V2	TUBE, electron: type 3A5; twin triode.	Voltage amplifier.	2J3A5
E1	VIBRATOR, synchronous: input voltage 6 volts; .7 amp; dual reed, 180 cps ±10%.	Converts low-voltage dc to high-voltage dc.	3H6694.1

67. Battery Box CY-1137/PIQ-1

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
W502	CABLE, power: portable; four #18 AWG stranded, rubber insulated cond; 300 v working.	Power supply cable.	1B3018-4
J502	CONNECTOR, plug: six round female cont pol.	Connector plug.	2Z3067
	CONTACT, electrical: p/o Battery Box CY-1137/PIQ-1; steel, nickel pl frame with plastic insert; "L" shaped; 1½" lg x 1⅛" wd x 1⅛" dp o/a.	Connects A batteries to amplifier.	2Z3194-116
	CONTACT ASSEMBLY, electrical: p/o Battery Box CY-1137; consists of three dual contact male and female snap button connectors wired in series, Taffet dwg No. T102-D034-B; 7½" lg x ¾" wd x 5/16" h o/a.	Connects B batteries to amplifier.	2Z3197A-102
H501	FITTING, conduit: cable grip; galv iron; ⅜" throat dia, for .375" to .437" dia cable, 1⅜" lg closed.	Weatherproof fitting for cable.	6Z4847-3
	STRAP, retaining: steel, lusterless olive drab finish; 3⅞" lg x ½" wd x ½" dp x .047" thk o/a; "L" shape.	Holds batteries in place.	3B3877-2

68. Loudspeaker LS-110/PIQ-1

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
E801	DRIVER UNIT, speaker: diaphragm type; PM field; 1.3 normal, 2.4 w peak; voice coil 15 ohms impedance; 2 1/16" lg x 2 1/4" dia o/a.	Converts electrical energy to sound energy.	6C17-2
A802	HORN, speaker: p/o loudspeaker LS-110/PIQ-1; aluminum, olive drab finish; cone shaped w/rolled edge; 8 13/16" lg x 5 1/8" dia o/a.	Horn for speaker.	6C27-4
A801	HOUSING, speaker unit: p/o loudspeaker LS-110/PIQ-1; aluminum, olive drab finish; cyl; 5 1/8" lg x 3 1/4" wd x 1 3/16" dp o/a.	Houses driver unit.	6C29
H801	POST, binding: screw type; 5/8" lg x 1/2" dia o/a; 1 3/16" lg #10-32 thd stud; brass, nickel plated.	Binding post.	3Z741-23

69. Microphone M-8/PIQ-1

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
W101	CABLE, special purpose: microphone; three #18 AWG stranded copper cond; synthetic rubber insulated, color coded.	Microphone cable.	3E2132
A102	BOOT: rubber, black.	Weatherproofs microphone switch.	3Z9849.39-1/B

E101, E102	BRACKET: "L" shape; brass, nickel pl.	Speaker support and electrical connections between loudspeaker and microphone.	6C198-1.1
P101	CONNECTOR, plug: five round male cont pol.	Terminates microphone cable.	2ZK7115.4
A103	GASKET: neoprene; irregular shape 10⅛" lg x 3¼" wd x 1/16" thk o/a.	Seals joint between parts of microphone handle.	2B500
H103	HANDLE, front: black plastic; 9¾" lg x 3¼" wd x 2" dp o/a.	Front of microphone handle.	2B545-1
H104	HANDLE: back; molded plastic, black; 9¾" lg x 3¼" wd.	Back of microphone handle.	2B545
MI101	MICROPHONE UNIT MC-419: 100-ohm impedance.	Changes sound energy to electrical energy.	2B1589
A101	MOUNTING, microphone: p/o microphone M-8/PIQ-1; c/o two pieces black neoprene 2 9/16" lg x ½" wd x 1/16" thk, and two pieces black neoprene ½" lg x ½" wd x 1/16" thk cemented together ½" from ea end.	Supports Microphone Unit MC-419 in microphone handle.	2B500-1
H102	RING ASSEMBLY, "D": p/o microphone M-8/PIQ-1; c/o one ea CRS "D" ring, Taffet part/dwg #A-101719, 1 ea brass stud Taffet part/dwg #A-101718, and 1 ea brass "T" nut Taffet part/dwg #A-101717; irregular shape; 2" lg x 13/16" wd x 7/16" thk o/a.	Attaches strap to microphone handle.	6L680-1
S101	SWITCH, push: SPST; 2 amp, 24 volts.	Controls power to Amplifier AM-852.	3Z9560-3.7

70. Miscellaneous Equipment

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
H101, H301, H302, H502	CABLE CLAMP M-284: female thread one end; split clamp other end.	Clamps cable to connector.	2Z1587-284
W201, W301	CABLE, special purpose: three #18 AWG stranded copper cond; 16 #30 AWG strands; synthetic rubber ins, color coded.	Connects microphone to amplifier	3E2132
W401	CABLE, power: Underwriters type SJ; two #18 AWG stranded cond; 300 v working.	External power supply cable.	1B818.14
E402	CLIP: electrical; battery clip, negative; copper; 4¼" lg x 1 9/16" wd x ¾" h; 100-amp capacity.	Connects wire to battery terminal.	3Z1087-9.1
E401	CLIP, electrical: battery clip; positive; copper; 4¼" lg x 1 9/16" wd x ¾" h; 100-amp capacity.	Connects wire to battery terminal.	3Z1087-9
E201	CLIP, electrical: flat spring; 2" lg x ½" wd x ⅛" h o/a, .035" thk.	For mounting jack box.	2Z2712.217
W1101	CONNECTING CABLE: special purpose; Wire WD-1/TT; 25 ft long; ends stripped and tinned.	Connects Transformer, AF, TF-102/PIQ-1 to amplifier	1B190-1.3
J301	CONNECTOR, plug: AN connector type AN-3101-14S-5S; 5 round female cont pol.	Terminates Cord CX-562.	2Z3066-68

P201, P301	CONNECTOR, plug: five round male cont pol.	Terminates microphone cable.	2ZK7115.4
J401	CONNECTOR, plug: six round female cont pol.	Terminates Cord CX-1966/U.	2Z3067-12
H202	FITTING, conduit: cable grip; galv iron; 3/8″ throat dia, for .375″ to .437″ dia cable, 1 3/8″ lg closed.	Weatherproof fitting for cable.	6Z4847-3
J201A	JACK JJ-033: for three cond, .205″ dia plug; 1 1/4″ lg x 15/16″ dia; J2 contact arrangement.	Provides input connection for external microphone.	2Z5533
J201B	JACK JJ-034: for two cond, .250″ dia plug; 1 1/4″ lg x 15/16″ OD; J1 contact arrangement.	Provides output connection for external speaker.	2Z5534
J202	JACK BOX: steel, olive drab finish, US Army spec 72-53; rectangular shape, 2 1/4″ lg x 2 1/4″ wd x 1 5/16″ d; 1 cable outlet, two tp jack outlets for Jack JJ-033 and JJ-034.	Provides connection for microphone.	2Z5599-6
	STRAP, carrying: olive drab cotton webbing; 48″ lg x 2″ wd x 1/16″ thk o/a; both ends terminated with steel, black, nickel finished snap hooks.	Carrying strap for Case CY-314/PIQ-1.	74-S-333-50
	WASHER, flat: plastic.	For conduit fitting.	6L52630-3

71. Transformer, AF, TF-102/PIQ-1

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
E701, E702	BRACKET: straight; brass, nickel pl; 2 1/8″ lg x 5/8″ wd x .050″ thk.	Speaker support and electrical connections.	2Z1244-148
H701, H702	POST, binding: screw type; knurled knob; 39/64″ dia x 1 5/32″ lg fully extended, excluding stud; No. 12-24 thd x 3/8″ lg mtg studs.	Binding post for loudspeaker line.	3Z737-40
T701	TRANSFORMER, AF: line type; pri 250 ohms impedance; sec 15 ohms impedance; hermetically sealed cyl metal case, silicon audio "A" core; 1 9/16″ dia x 2 1/4″ lg excluding term.	Line matching transformer.	2Z9637.57

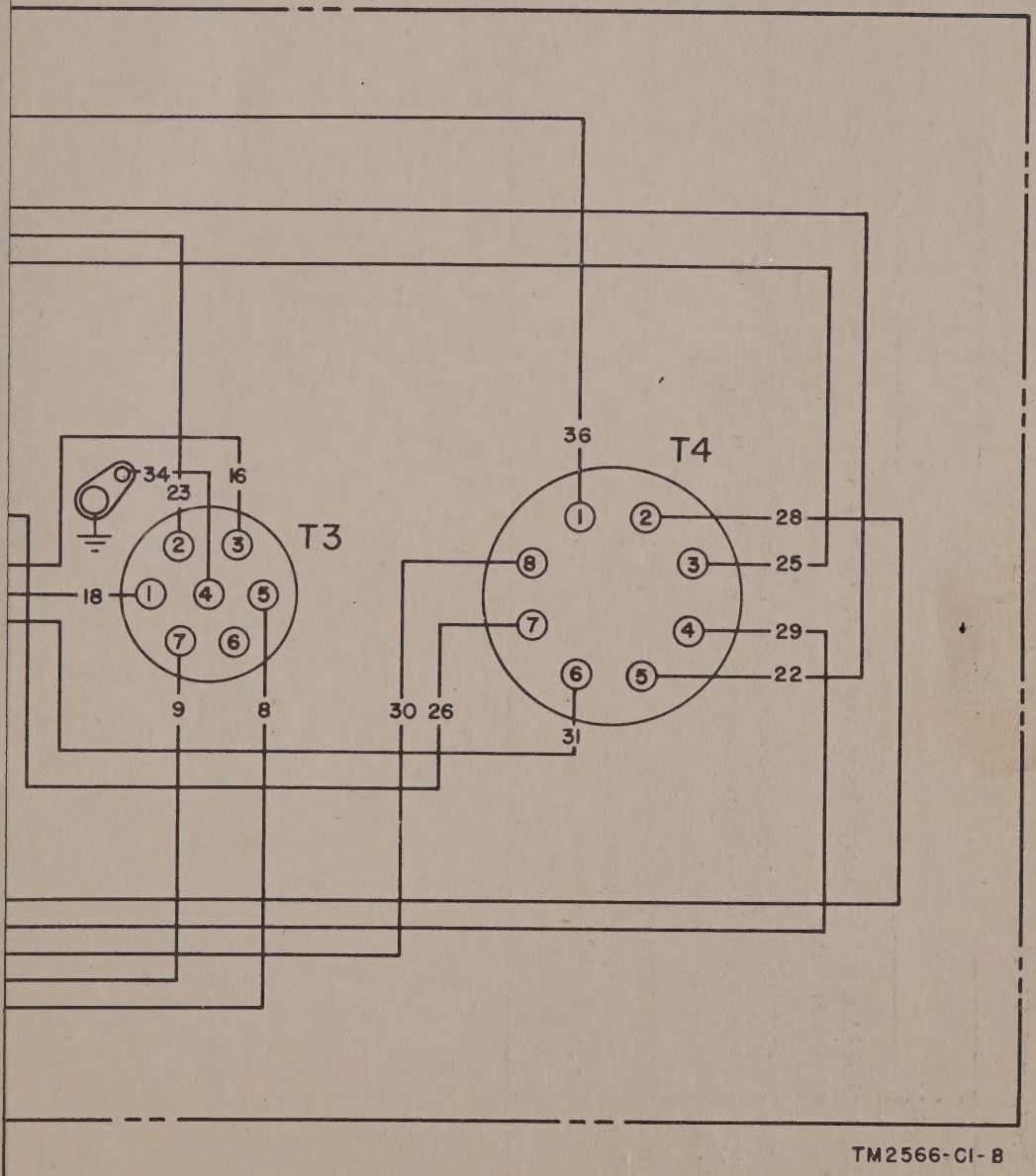

Figure 23. Amplifier AM-852/PIQ-1, wiring diagram.

71. Transformer, AF, TF-102/PIQ-1

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
E701, E702	BRACKET: straight; brass, nickel pl; 2 1/8" lg x 5/8" wd x .050" thk.	Speaker support and electrical connections.	2Z1244-148
H701, H702	POST, binding: screw type; knurled knob; 39/64" dia x 1 5/32" lg fully extended, excluding stud; No. 12-24 thd x 3/8" lg mtg studs.	Binding post for loudspeaker line.	3Z737-40
T701	TRANSFORMER, AF: line type; pri 250 ohms impedance; sec 15 ohms impedance; hermetically sealed cyl metal case, silicon audio "A" core; 1 9/16" dia x 2 1/4" lg excluding term.	Line matching transformer.	2Z9637.57

WIRE LIST					
WIRE NO.	COLOR	WIRE NO.	COLOR	WIRE NO.	COLOR
1	WHITE / BROWN	14	BLACK	27	BLACK
2	BROWN	15	GREEN	28	RED
3	GREEN	16	BLUE	29	RED
4	WHITE	17	GREEN	30	WHITE
5	GREEN	18	BLUE	31	WHITE
6	GREEN	19	WHITE	32	RED
7	BLACK	20	BROWN	33	BLACK
8	WHITE	21	BLACK	34	BLACK
9	WHITE	22	WHITE / RED	35	BLACK
10	WHITE	23	RED	36	WHITE / BROWN
11	WHITE	24	WHITE	37	WHITE
12	BLUE	25	RED	38	WHITE / RED
13	BROWN	26	BROWN		

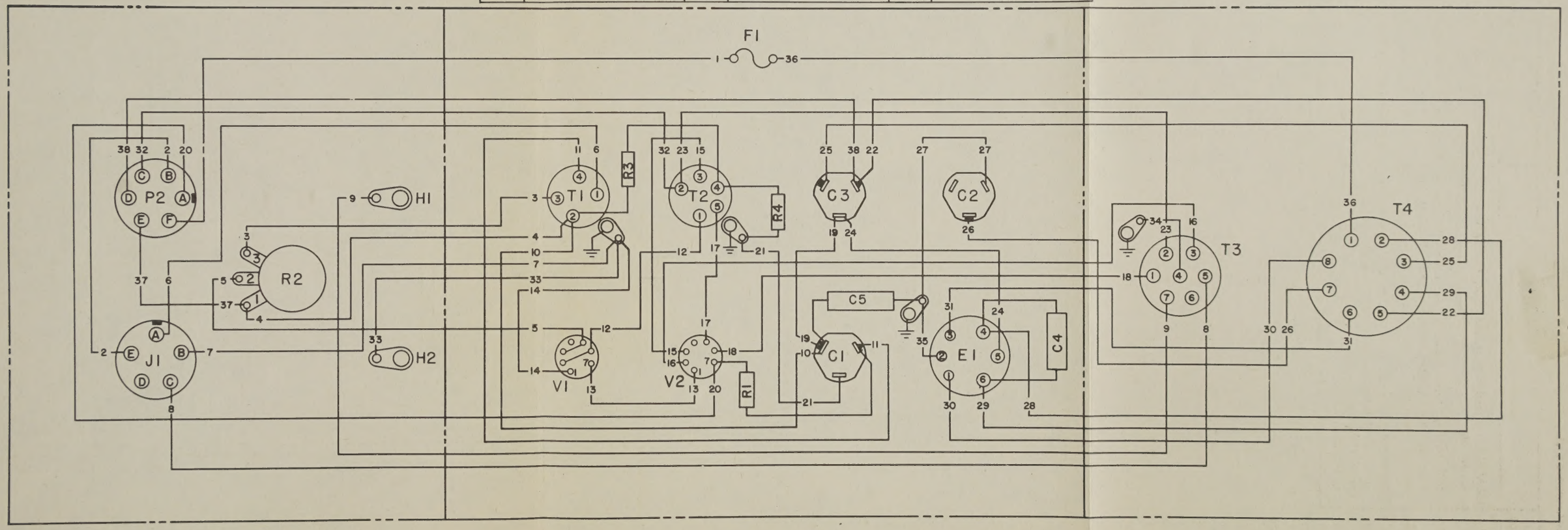

Figure 23. Amplifier AM-852/PIQ-1, wiring diagram.